



# **Integrated Safety Management System (ISMS) Software**

**Stephen Coffing  
Sandia National Laboratories/New Mexico**

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# ISMS Software

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- **System for Integrated Safety, Environmental, and Emergency Management**
- **Relational Database Management System to Store Hazard & Environmental Information and Analysis Results**
- **Identify and Analyze Hazards by Operation**
- **Assists users in portions of (not all) ISM**



# NEPA as an Element of ISM

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- **Safety Analysis Area**
  - *Primary Hazard Screening (PHS)*
  - *Hazards Analysis (HA)*
  - *Safety Assessment (SA) -Future*
  - *Safety Analysis Report (SAR) -Future*
  - *Safety Assessment Document (SAD) -Future*
- **NEPA Area**
  - *NEPA Checklist*
- **EOC Area (primarily for Emergency Response)**
  - *Building Profiles*
  - *Emergency Management Concerns*



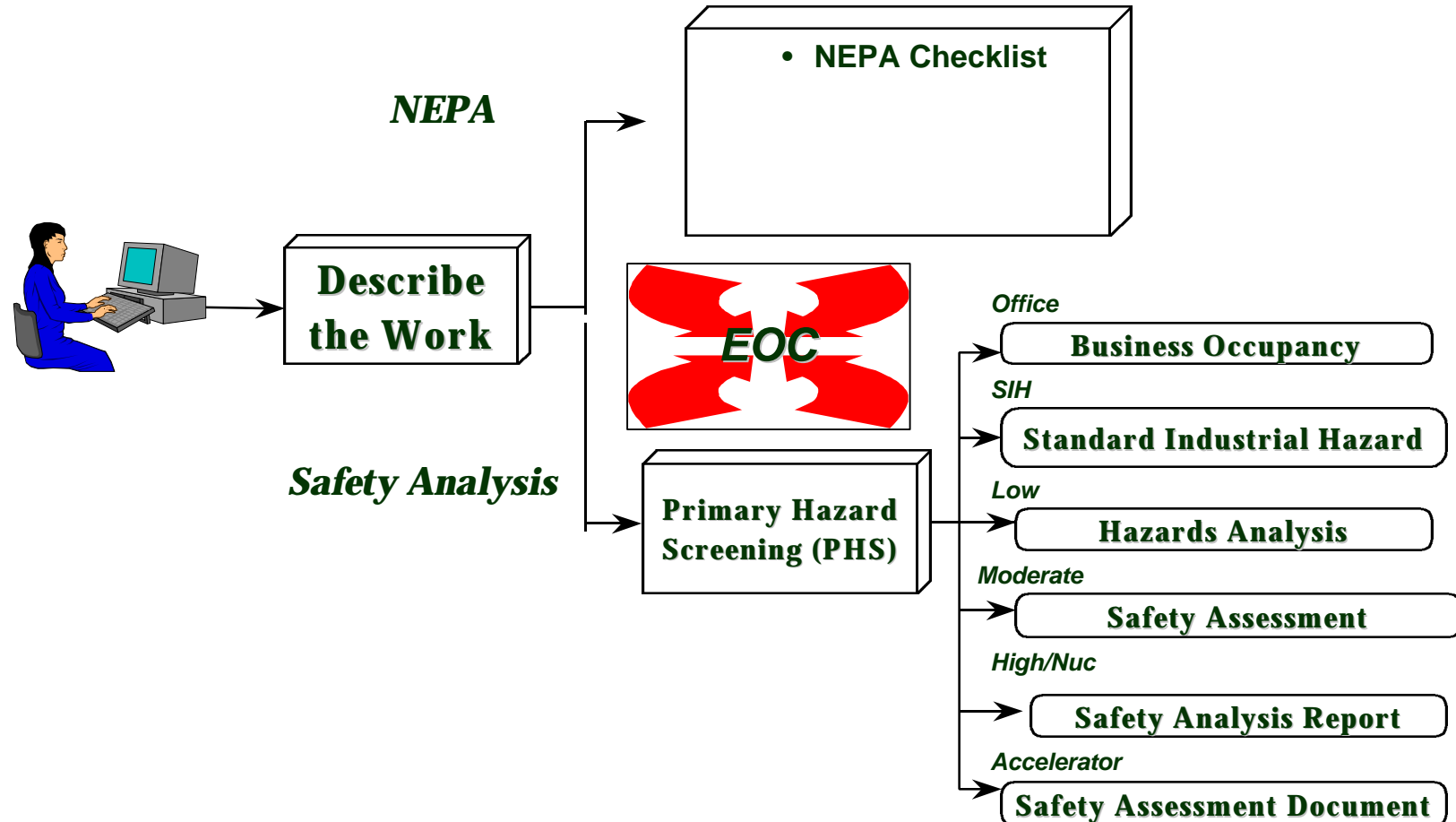
## Developed Modules

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- **PHS module**
  - *Identifies hazards*
  - *Determines hazard classification for the operation*
  - *Determines required training*
- **HA module**
  - *Performed after the PHS (only for hazard categories LOW and higher)*
  - *Allows you to take credit for mitigative factors*
- **NEPA module**
  - *NEPA Checklist (basic NEPA document)*
  - *Normally done before the start of a project or before construction*



# ISMS Software Overview





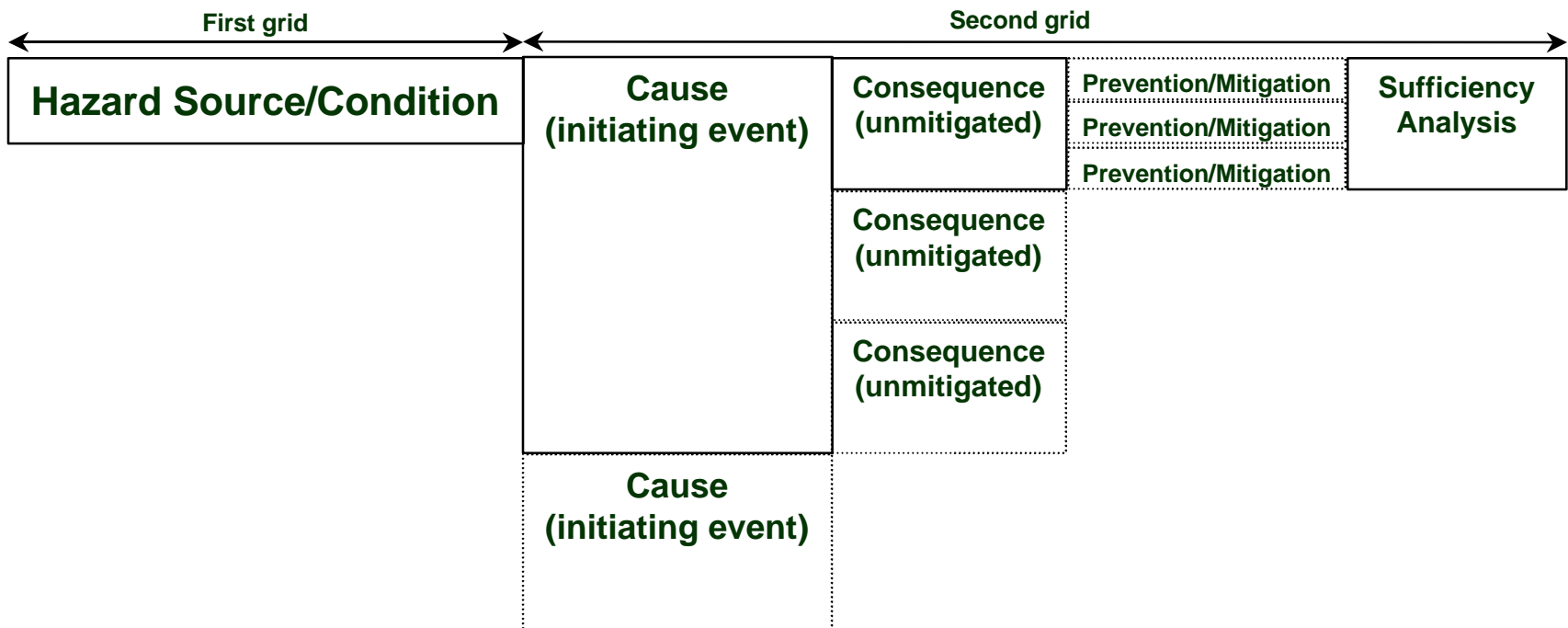
# What is a Hazards Analysis?

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- A Hazards Analysis (HA) is a systematic tabular method for assessing the significance of hazards through consideration of the causes, effects, and existing mitigation/prevention measures
- HA has three sections:
  - *General Information*
  - *HA Description*
  - *Hazards Analysis*
    - List of hazard sources/conditions
    - Analysis of mitigation sufficiency based on cause and consequence



## HA Model





## HA Reviews

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- The Risk Management sufficiency analysis is based on a conservative “qualitative” relationship between the severity of the unmitigated consequence and the effectiveness of the controls.
- A technical review is performed by the ES&H coordinator to ensure that the HA is technically correct and that all hazards have been adequately analyzed
- A quality review is performed by Risk Management Department